



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/509,340	10/08/2004	Masaya Okamoto	259549US0XPCT	6124

22850 7590 02/28/2008  
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C.  
1940 DUKE STREET  
ALEXANDRIA, VA 22314

EXAMINER
----------

SACKEY, EBENEZER O

ART UNIT	PAPER NUMBER
----------	--------------

1624

NOTIFICATION DATE	DELIVERY MODE
-------------------	---------------

02/28/2008

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com  
oblonpat@oblon.com  
jgardner@oblon.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/509,340	<b>Applicant(s)</b> OKAMOTO ET AL.	
	<b>Examiner</b> EBENEZER SACKEY	<b>Art Unit</b> 1624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 25 October 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) 1-8 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 9-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>10/08/04, 02/03/06</u> .                                      | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### **Status of the Claims**

Claims 1-16 are pending.

### ***Specification***

The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

### ***Information Disclosure Statement***

Receipt of the Information Disclosure Statement filed on 10/08/04 and 02/13/06 respectively is acknowledged and has been entered into the file. Signed copies of the 1449 are attached herein.

### ***Response to Restriction***

Applicant's election with traverse of Group II, claims 9-16 in the reply filed on 10/25/07 is acknowledged. The traversal is on the ground(s) that no adequate reasons

or examples have been given to support a conclusion of patentable distinctness between Group I and Group II. This is not found persuasive because contrary to applicant's assertion, the two groups in the restriction requirement are drawn to the preparation of two distinct products. The two products have acquired a separate status in the art in view of their classification. Thus, a reference teaching a process for the preparation of compounds of Group I will not necessarily anticipate or render obvious the preparation of compounds of Group II. Note the art is replete with various processes of preparing compounds of Group I and II.

Claims 1-8 are withdrawn from further consideration by the Examiner, 37 CFR 1.142(b), as being drawn to non-elected subject matter.

The requirement is still deemed proper and is therefore made FINAL.

### **Claim Rejections - 35 U.S.C. § 103**

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 9-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pressman et al., (E.P.Patent number 0 869 110 A1) in view of Chalk (U.S.Patent number 4,096,169).

Applicants claim a process for preparing polycarbonate wherein an aromatic dihydroxy compound or an aliphatic dihydroxy compound is subjected to oxidative carbonylation with carbon monoxide and oxygen in the presence of palladium catalyst using a compound having a carbonate bond as a reaction solvent.

**Determination of the scope and content of the prior art (MPEP §2141.01)**

Pressman et al., teach the preparation of polycarbonate which comprises reacting dihydroxy aromatic compounds such as resorcinol with carbon monoxide and oxygen in the presence of palladium catalyst. See page 2, lines 39-55 and page 3, lines 22-23. Note the use of cocatalysts (promoter and redox catalyst, claims 4 and 12) recited on page 3, lines 4-7. Chalk '169' also teaches the preparation of aromatic carbonates comprising the use of similar reactants. Note the use of the wide range of various promoters and organic salts, column 4, lines 13-58 (claims 4 and 12) and the use of reaction solvent with a carbonate bond in column 4, line 25 (claim 14) and onium salt (column 4, lines 35-45, claim 16).

**Ascertainment of the difference between the prior art and the claims (MPEP §2141.02)**

The difference between the current process and that of Pressman et al., resides in the specific compound having a carbonate bond. Note chalk '169' teaches various promoters which are organic salts, column 4, lines 13-58 *supra*. It is noted that none of the references teach a zeolites with a particle diameter of 300  $\mu\text{m}$ ; however, such a requirement is nothing more than the manipulation of process parameters to improve yield and/or selectivity.

**Finding of prima facie obviousness---rational and motivation (MPEP §2142-2143)**

Accordingly, at the time of filing this application, it would have been *prima facie* obvious to one of ordinary skill in the art to prepare polycarbonate as claimed herein with the substrates and catalyst and co-catalysts with a reasonable expectation of success because said substrates and co-catalysts and catalyst have been employed to prepare similar compounds. Thus, the motivation to prepare instant compounds derives from the expectation that the use of similar substrates would produce similar compounds absent a showing of unexpected results and/or properties. Therefore, the instant process would have been suggested to one of ordinary skill in the art.

-----

Any inquiry concerning this communication or earlier communications from the examiner should be directed to E. Sackey whose telephone number is (571) 272-0704. The examiner can normally be reached on Monday-Friday from 7:30 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James O. Wilson, can be reached on (571) 272-0661. The fax phone

Application/Control Number: 10/509,340  
Art Unit: 1624

Page 6

number for this Group is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-1600.

EOS

**/James O. Wilson/**

**Supervisory Patent Examiner**

**Art Unit 1624**